S/N Unknown

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Jerome M. Eldridge et al.

Examiner: Unknown

Serial No .:

Group Art Unit: Unknown

Filed:

Unknown

Title:

Herewith

Docket: 1303.045US1

ATOMIC LAYER DEPOSITION OF METAL OXIDE AND/OR LOW ASYMMETRICAL TUNNEL BARRIER INTERPLOY INSULATORS

> POWER OF ATTORNEY BY ASSIGNEE AND CERTIFICATE BY ASSIGNEE UNDER 37 CFR § 3.73(b)

Commissioner for Patents Washington, D.C. 20231

Micron Technology, Inc., assignee of the entire right, title and interest in the above-identified application by assignment attached hereto, hereby appoints the attorneys and agents of the firm of SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A., listed as follows:

Aronoff, Marvin S. Reg. No. 35,052 Hauck, John L. Reg. No. 36,154 Nicholson, Lea A. Reg. No. 37,346 Nielson, Walter W. Reg. No. 58,377 Beckinnan, Marvin L. Reg. No. 38,377 Beckinnan, Marvin L. Reg. No. 97,50769 Reg. No. P-50,769 Reg. No. P-50,769 Reg. No. P-50,769 Reg. No. 99,610 Reg. No. 44,813 Reg. No. 44,813 Reg. No. 37,650 Reflect, Reg. No. 39,610 Reg. No. 39,610 Reg. No. 37,650 Reflect, Monique M. Reg. No. 10,052 Reg. No. 32,336 Reg. No. 32,146	
Arora, Suneel Reg. No. 42,267 Harris, Robert J. Reg. No. 37,346 Nielson, Walter W. Reg. No. 25,377 Jackson Huebsch, Katharine A.Rog. No. 47,670 Padya, Danny J. Rog. No. 36,376,360 Perdok, Danny J. Rog. No. 36,376,360 Perdok, Monique M. Reg. No. 37,650 Perdok, Monique M. Reg. No. 32,340 Peterson, David C. Rog. No. 32,311 Kluth, Daniel J. Reg. No. 32,146 Peterson, David C. Rog. No. 32,146	o. 28,650
Beckman, Marvin L. Reg. No. 38,377 Jackson Huebsch, Katharine A.Reg. No. 47,670 Padys, Danny J. Reg. No. Berdle, Raymond R. Reg. No. P-50,769 Jurkovich, Patti J. Reg. No. 44,813 Parker, J. Kevin Reg. No. Bilinghi, Timothy E. Reg. No. 39,610 Kalis, Janal M. Reg. No. 37,650 Perdok, Monique M. Reg. No. 32,836 Klima-Silberg, Catherine J. Reg. No. 40,052 Peret, Andrew R. Reg. No. 42,331 Kluth, Daniel J. Reg. No. 32,146 Peterson, David C. Reg. No. 32,146	o. 48,346
Berdie, Raymond R. Rog. No. P-50,769 Jurkovich, Patti J. Reg. No. 44,813 Parker, I, Kevin Reg. No. Bianchi, Timothy E. Rog. No. 39,610 Kalis, Janal M. Reg. No. 37,650 Perdok, Monique M. Reg. No. 32,836 Klima-Silberg, Catherine I. Rog. No. 40,052 Peret, Andrew R. Reg. No. 32,146 Peterson, David C. Rog. No. 42,331 Kluth, Daniel J. Reg. No. 32,146 Peterson, David C. Rog. No. 40,052 Peret, Andrew R. Rog. No. 42,331 Kluth, Daniel J. Reg. No. 32,146 Peterson, David C. Rog. No. 40,052 Peret, Andrew R. Rog. No. 40,052 Peret, Andrew R. Rog. No. 40,052 Peterson, David C. Rog. No.	o. 25,539
Bianchi, Timothy E. Reg. No. 39,610 Kalis, Janal M. Reg. No. 37,650 Perdok, Monique M. Reg. No. 32,636 Klima-Silberg, Catherine I. Reg. No. 40,052 Peret, Andrew R. Reg. No. 42,331 Kluth, Daniel J. Reg. No. 32,146 Peterson, David C. Reg. No. 32,146	o. 35,635
Biflien, Richard E. Reg. No. 32,836 Klima-Silberg, Catherine I. Reg. No. 40,052 Peret, Andrew R. Reg. No. 12,146 Peterson, David C. Reg. No. 32,146 Peterson	0. 33.024
Billien, Richard E. Reg. No. 32,836 Klima-Silberg, Catherine I. Reg. No. 40,052 Peret, Andrew R. Reg. No. 32,146 Peterson, David C. Reg. No. 32,146 Peterson	o. 42,989
	o. 41,246
	o. 47.857
Brighan, Thomas F. Reg. No. 35,075 Lacy, Rodney L. Rog. No. 41,136 Prout, William F. Reg. N	o. 33,995
Brooks, Edward I., III Rog. No. 40,925 Lemaire, Charles A. Rey, No. 36,198 Schumm, Sherry W. Reg. N	lo. 39,422
	0. 25,816
	ia. 38.613
	o, 45,368
	o. 45,458
Dilit, John M. Reg. No. 44,639 Mates, Robert E. Reg. No. 35,271 Steffey, Charles E. Reg. No.	lo. 25,179
Drike, Ednardo E. Reg. No. 40,594 McCtackin, Ann M. Reg. No. 42,858 Stordal, Leif T. Reg. N	0, 46,251
Embretson, Janet E. Rog. No. 39,665 McTavish, Hugh E. Reg. No. 48,341 Terry, Kathleen R. Reg. N	o. 31,884
Förigst, Bradley A. Rog. No. 30,837 Mehrle, Joseph P. Rog. No. 45,535 Tong, Viet V. Rog. N	lo. 45,416
Giron, Owen J. Reg. No. 36,143 Moore, Charles L., Jr. Reg. No. 33,742 Viksnins, Ann S. Reg. N	o. 37,748
Gogie, Gregory J. Reg. No. 36,530 Muller, Mark V. Reg. No. 37,509 Woessner, Warron D. Reg. No. 37,509	o. 30,440
Gorrych, Joseph E. Reg. No. 41,791 Nama, Kash Reg. No. 44,255	

arid also attorney Michael L. Lynch (Reg. No. 30,871) of Micron Technology, Inc., as its attorneys with full power of substitution to prosecute this application and to transact all business in the Patent and Trademark Office in connection therewith.

The assignce certifies that the above identified assignment has been reviewed and to the best of the assignce's knowledge and belief, title is in the assignee.

Please direct all correspondence regarding this application to the following:

Schwegman, Lundberg, Woessner & Kluth, P.A.

Attn: Edward J. Brooks, III

P.O. Box 2938

Minneapolis, MN 55402

Telephone: (612) 373-6913 Facsimile: (612) 339-3061

2-18-02 Dated:

MICRON	TACHNOL	OGY, INC.
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Name: Roderic W. Lewis

Title: V.P. of Legal, General Counsel, and Corporate Secretary

Schwegman ■ Lundberg ■ Woessner ■ Kluth

DECLARATION FOR PATENT APPLICATION

As a below named inventor I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name;

I believe I am an original, first an joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

ATOMIC LAYER DEPOSITION OF METAL OXIDE AND/OR LOW ASYMMETRICAL TUNNEL BARRIER INTERPLOY INSULATORS .

The specification of which is attached hereto.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information which is material to the patentability of this application in accordance with Title 37, Code of Federal Regulations, § 1.56 (see page 3 attached hereto).

I hereby claim foreign priority benefits under Title 35, United States Code, §119/365 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on the basis of which priority is claimed:

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I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

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Application Number 09/943,134

Filing Date
August 30, 2001

Status Pending Attorney Docket No.: 1303.045US1 Serial No. not assigned Filing Date. not assigned

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Citizenship:	ventor number 1: <u>Jerome M. Eldridg</u> United States of America 16605 Englewood Avenue Los Gatos, CA 95032	Residence: Los Gatos, CA
Signature:	e M. Eldridge	Date:
	ventor number 2: <u>Kie Y. Ahn</u> United States of America 639 Quaker St. Chappaqua, NY 10514	Residence: Chappaqua, NY
Signature:Kie Y	. Ahn	Date:
Full Name of joint in Citizenship:	ventor number 3: Leonard Forbes United States of America 965 NW Highland Terrace	Residence: Corvallis, OR
Signature:	Corvallis, OR 97330	Date: 8 FEB ZOOZ
Full Name of invento Citizenship: Post Office Address:		Residence:
Signature:		Date:

§ 1.56 Duty to disclose information material to patentability.

- (a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is canceled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is canceled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:
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 - (1) it establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
 - (2) it refutes, or is inconsistent with, a position the applicant takes in:
 - (i) opposing an argument of unpatentability relied on by the Office, or
 - (ii) asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

- (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
 - (1) Each inventor named in the application:
 - (2) Each attorney or agent who prepares or prosecutes the application; and
 - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

Schwegman ■ Lundberg ■ Woessner ■ Kluth

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Full Name of joint inventor number 1 : <u>Jere</u> Citizenship: United States of Ame Post Office Address: 16605 Englewood Av Los Gatos, CA 95032	erica Residence: Los Gatos, CA venue
Signature: Jerome M. Eldridge	Date:
Full Name of joint inventor number 2: Kie Citizenship: United States of Amerost Office Address: 639 Quaker St. Chappaqua, NY 1051	erica Residence: Chappaqua, NY
Signature: Kie Y. Ahn	Date: 1=6 4, 2002
Full Name of joint inventor number 3 : Lec Citizenship: United States of Am Post Office Address: 965 NW Highland Te Corvallis, OR 97330	Residence: Corvallis, OR
Signature:Leonard Forbes	Date:
Full Name of inventor: Citizenship: Post Office Address:	Residence:
Signature:	Date:

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1

Schwegman ■ Lundberg ■ Woessner ■ Kluth

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Full Name of joint inventor number 1: Jerome M. Eldri Citizenship: United States of America Post Office Address: 16605 Englewood Avenue Los Gatos, CA 95032 Signature M. Eldridge	Residence: Los Gatos, CA Date: 2/1/02
Full Name of joint inventor number 2: Kie Y. Ahn Citizenship: United States of America Post Office Address: 639 Quaker St. Chappaqua, NY 10514	Residence: Chappaqua, NY
Signature: Kie Y. Ahn	Date:
Full Name of joint inventor number 3 : <u>Leonard Forbes</u> Citizenship: <u>United States of America</u> Post Office Address: 965 NW Highland Terrace Corvallis, OR 97330	Residence: Corvallis, OR
Signature: Leonard Forbes	Date:
Full Name of inventor: Citizenship: Post Office Address:	Residence:
Signature:	Date:

Attorney Docket No.: 1303.045US1 Serial No. not assigned

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